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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/816,860	04/05/2004	Sung Su Shin		1155
7590	01/18/2006			
DOHYUN PARK Apt. #2H 200 Old Palisade Road Fort Lee, NJ 07024			EXAMINER HANAY, RICHAE LEE	
			ART UNIT	PAPER NUMBER
			3765	
DATE MAILED: 01/18/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/816,860	Applicant(s) SHIN, SUNG SU	
	Examiner Richale L. Haney	Art Unit 3765	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) 2 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the weaving intervals comprising two strings in the weft as recited in claims 1 and 5 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

1. Claims 1 and 5 are objected to because of the following informalities: the phrase "woven in a cylinder shape" does not define whether the device of the instant application is tubular or two-dimensional. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1 – 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. There is no clear meaning ascertained for the phrases "a weaving interval in the weft of at least two strings" in claim 1 and "the woven interval in the weft way being two strings" in claim 5. It is unclear whether the applicant is reciting a weave consisting of 2 up/2 down, 2 up/3 down, or any other weave configuration with 2 yarns is the weft direction. The term "regular" in claim 1 is a relative term, which renders the claim indefinite. The term "regular" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Therefore, what the applicant considers to be a regular interval in regard to the twist of the yarn is not defined and rendered indefinite.

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1 – 6 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1, 2, 3, 5, and 9 of Lee (US 6,928,659) in view of Young et al. (US 6,107,538). Although the conflicting claims are not identical, they are not patentably distinct from each other because the modifying the structure of the weave and denier size would have been an obvious variation to one of ordinary skill in the art at the time the invention was made, moreover modifying the weave structure and the previously recited 170D yarn to a micro denier does not produce a new or unexpected result. It is well known in the textile art the micro fibers are absorbent. Young et al. discloses a device used to absorb bodily liquids made from polyester fiber (Column 27, line 36) with a decitex range from 1-20 (Column 27, 64-66), which would

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equate to a denier range of 0.09 – 18. It is noted that the device of Young is not in the same field of endeavor; however, meets the combination requirements for a U.S.C. 103 rejection because the devices provides the same problem solving function. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lee by utilizing the low denier yarn range taught by Young et al. in order to obtain an absorbent fabric.

In regard to the yarn having twist at even intervals, it is well known in the art that uneven intervals are only used for specific functions, none of which apply to the claimed endeavor. It would have been obvious to a person of regular skill in the art at the time the invention was made to use a yarn with regular twist intervals in order to achieve regularity. It is noted that the it would have been obvious to use 100% polyester yarn in place of the disclosed fiber blend because the percentage of fiber used is not significant to the patentability of the sweatband.

a. In assessing the subject matter of product-by-process claims, it is necessary to bear in mind certain principles. Foremost among these is the principle that even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. In re Thorpe, 777 F.2d 695, 227 USPQ 964 (Fed. Cir. 1985); In re Brown, 459 F. 2d 531, 173 USPQ 685 (CCPA 1972); In re Pilkington, 411 F.2d 1345, 162 USPQ 145 (CCPA 1969). Thus, the patentability of a product does not depend on the method of production. Thorpe, supra. If the product in a product-by-process claim is the same as or obvious from a product of the prior art, the claim is

unpatentable even though the prior product was made by a different process.

Thorpe, supra; In re Marosi, 710 F.2d 799, 218 USPQ 289 (Fed. Cir. 1983). The Court of Customs and Patent Appeals discussed these principles as well as the rationale for rejection of such claims over prior art disclosures of products in In re Brown, 459 F.2d 531, 173 USPQ 685 (CCPA 1972) as follows:

In order to be patentable, a product must be novel, useful and unobvious. In our law, this is true whether the product is claimed by describing it, or by listing the process steps used to obtain it. This latter type of claim, usually called a product-by-process claim, does not inherently conflict with the second paragraph of 35 USC 112. [citation omitted] That method of claiming is therefore a perfectly acceptable one so long as the claims particularly point out and distinctly claim the product or genus of products for which protection is sought and satisfy the other requirements of the statute. It must be admitted, however, that the lack of physical description in a product-by-process claim makes determination of the patentability of the claim more difficult, since in spite of the fact that the claim may recite only process limitations, it is the patentability of the product claimed and not of the recited process steps which must be established. We are therefore of the opinion that when the prior art discloses a product which reasonably appears to be either identical with or only slightly different than a product claimed in a product-by-process claim, a rejection based alternatively on either section 102 or section 103 of the statute is eminently fair and acceptable. As a practical matter, the Patent Office is not equipped to manufacture products by the myriad of processes put before it and then obtain prior art products and make physical comparisons therewith. (emphasis in the original, footnotes omitted).

Thus, although process limitations distinguishing the product over the prior art must be given the same consideration as traditional product characteristics, In re Hallman, 655 F.2d 212, 210 USPQ 609 (CCPA 1981), In re Luck, 476 F.2d 650, 177 USPQ 523 (CCPA 1973), and although product-by-process claims are limited by and defined by the process, determination of patentability remains based upon the product itself, Thorpe, 227 USPQ at 966.

In view of the similarities between the claimed process, i.e. "twist at regular intervals", and that of the prior art of Lee, it is reasonable to believe that the

product made by the prior art process would be either identical to or only slightly different from the claimed product. In such a situation, the burden of proof shifts to applicant to prove that the claimed product is materially different.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richale L. Haney whose telephone number is 571-272-8689. The examiner can normally be reached on M-F 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John J. Calvert can be reached on 571 -272-4983. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Richale L. Haney
Patent Examiner
Art Unit 3765
January 11, 2006

RLH


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